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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,974	11/30/2001	Haruo Ichikawa	Q66892	4743

7590

07/16/2003

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EXAMINER

FOX, CHARLES A

ART UNIT

PAPER NUMBER

3652

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,974

Applicant(s)

ICHIKAWA ET AL.

Examiner

Charles A. Fox

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Swain. In regards to claim 1 Swain US 5,466,114 discloses a method of transferring a roll comprising the steps of:

bringing a roll loading shaft into engagement with a roll retainer shaft holding a plurality of rolls;

releasing said rolls from being held on roll retaining shaft;

supporting said rolls;

moving and transporting one of said rolls along the roll retaining shaft and onto said roll loading shaft;

fixing said one roll to said roll loading shaft.

In regards to claim 2 Swain further discloses the step of releasing the rolls from the roll retaining shaft comprises the step of pressing the end of the retainer shaft by the end of the roll loading shaft to release the rolls under a pressing force.

In regards to claim 4 Swain discloses an apparatus for transferring a roll held on a supply carriage comprising:

a roll loading shaft (110) for engaging a roll retaining shaft (14) of said roll supply carriage which holds a plurality of rolls;

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releasing means (24) for releasing said rolls from being held on said retaining shaft (14);

transferring means (not numbered) for moving one of said rolls onto said roll loading shaft, see column 9 lines 33-40;

fixing means for fixing said one of said rolls to said loading shaft. See column 5 lines 44-50.

In regards to claim 6 Swain also discloses that said releasing means has a pressing member (112) disposed at the axial center of said roll loading shaft for pressing an axial center of said roll retaining shaft, to release said rolls from said retaining shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain as applied to claims 1 and 4 above, and further in view of Van Breen. In regards to claim 3 Swain teaches the limitations of claim 1 as above, Swain further teaches that the pressing tip of the loading shaft rotates a portion of the retaining shaft. Swain does not teach moving the rolls by the rotation of said roll loading shaft. Van Breen US 4,290,734 teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art,

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at the time of invention to modify the roll moving methods taught by Swain with the methods taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

In regards to claim 7 Swain teaches the limitations of claim 4 as above, he further teaches an engaging means (112) disposed at the axial center of the loading shaft for engaging a shaft in the axial center of the retaining shaft, and that said engaging means rotates to cause said shaft in the retaining shaft. Swain does not teach a ball screw for moving the rolls along the retaining shaft. Van Breen teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll retaining shaft taught by Swain with the roll moving device taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain as applied to claim 4 above, and further in view of Rauh. In regards to claim 5 Swain teaches the limitations of claim 4 as above, he does not teach a pushing means for a support members of the loading shaft. Rauh US 4,953,805 teaches a loading shaft (12) for rolls of film where the shaft has a support member (13) for supporting the side of one of said rolls and a displacement means (18) for moving said support member along said loading shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the support member as taught by Rauh on the device

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taught by Swain in order to allow the device to expel roll cores after the film is removed from the roll.

In regards to claim 10 Swain teaches the limitations of claim 4 as above, he does not teach the fixing means as having finger members. Rauh teaches a means for fixing a film roll to a loading shaft comprising finger members (12) that are displaceable towards an outer circumferential surface of said roll loading shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention the fixing members as taught by Rauh on the device taught by Swain in order to allow the device to hold and release roll cores as needed.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swain and Van Breen as applied to claim 7 above, and further in view of Schlitz. Swain and Van Breen teach the limitations of claim 7 as above they do not teach an Oldham coupling between the loading and retaining shafts. Schlitz US 1,907,447 teach an Oldham coupling for joining two shafts, said coupling comprising:

- a hub (22) rotated by a drive means (20);

- a slide element (25) slidable in a direction substantially perpendicular to the longitudinal axis of the hub;

- a sleeve (42) disposed around said hub and said slide element which limits the range of movement of the slide element;

- said slide element engages a driven shaft to transmit the rotational motion of said drive means (20).

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It would have been obvious to one of ordinary skill in the art, at the time of invention to provide an Oldham coupling as taught by Schlitz on the device taught by Swain and Van Breen in order to account for any misalignment between the loading and retaining shafts.

Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Read in view of Swain. In regards to claim 11 Read US 4,557,515 teaches a roll supply carriage comprising:

- a roll retaining shaft (30) for holding a roll thereon;
- fixing means (45,45a) disposed in a tip of said shaft for fixing said roll to said shaft;

- a switching means (67) for retaining and releasing a roll from said retaining shaft.

Read does not teach a means of moving the roll on the retaining shaft. Swain teaches a transferring means (not numbered) for moving one of said rolls along said roll retaining shaft, see column 9 lines 33-40. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll transferring means taught by Swain to the device taught by Read in order to move a roll from the device without manual intervention.

In regards to claim 12 Read further teaches said fixing means has finger members displaceable towards the outer circumference of said retaining shaft.

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In regards to claim 13 Read also teaches the switching mechanism comprises:
cams (57,58) for bringing said fixing members into and out of the position of holding said roll on said retaining shaft;
displacing means (63) for displacing said cams.

In regards to claim 14 Read further teaches that said displacing means is disposed on the tip of said retaining shaft and movable along said shaft to displace the cams.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read and Swain as applied to claim 11 above, and further in view of Van Breen. Read and Swain teach the limitations of claim 11 as above, they do not teach moving the rolls from the retaining shaft with a ball screw. Van Breen teaches moving a plurality of rigid disc along a shaft by rotation of a ball screw located in the shaft. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the roll moving device taught by Read and Swain with the roll moving device taught by Van Breen in order to move the rolls without needing a separate handler thereby simplifying the system by doing away with secondary handling devices.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read and Swain as applied to claim 11 above, and further in view of Rauh and further in view of Sano et al. Read and Swain teach the limitations of claim 11 as above they do not teach the carriage as being a light shielded case with a labyrinth seal.

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Rauh teaches a carriage for transferring rolls of film, wherein said carriage interior is shielded from ambient light. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide a light shielded carriage as taught by Rauh for the device taught by Read and Swain in order to protect the light sensitive material being transferred. Rauh does not teach a labyrinth seal on said carriage.

Sano et al. JP 07034759 A teach using a labyrinth seal on the opening of a dark room in order to prevent light from entering said dark room. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Read, Swain and Rauh with a labyrinth seal as taught by Sano et al. in order to insure that no light impinges upon the rolls as they are being moved from the carriage to a process machine.

The prior art made of record and not relied upon, but considered pertinent to applicant's disclosure is: Hamilton and Voglesong (1916), Cullen et al. (1987), Kuribayashi (1993), Pichlmair (1994), Nelson et al. (1994), Karaki et al. (2000) and Nakamura (2000).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached on 7:00-5:00 Monday, Tuesday, Thursday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on 703-308-3248. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.


EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

CAF
July 8, 2003

CAF 7-8-03